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浙江禾川科技股份有限公司 | Zhejiang Hechuan Technology Co.,Ltd
浙江省衢州市龙游县工业园区亲善路 5 号 | No.5, Qinshan Road, Longyou Industrial Zone, Quzhou City, Zhejiang Province



Date 2026-08-28
CN 安装说明
EN Instruction Sheet

1. 安全注意事项 (Safety precautions)

本说明书涉及产品为工业产品，并且均为开放型外壳设计。要求用户使用产品时，务必将产品安装于具有防尘、防潮以及免于电击 / 冲击等意外的控制柜内，并且需要设置保护措施以防止非维护人员不当操作或意外导致设备故障或损坏，造成不可避免的人员风险和财产损失。
The products in this manual are industrial products and are all open-type housing designs. It is essential to install these products within a control cabinet that is safeguarded against dust, moisture, and accidents such as electric shocks or physical impacts. Additionally, protective measures must be taken to prevent malfunctions or damage caused by improper operation or accidents involving non-maintenance personnel. Failure to do so may lead to serious risks to personnel safety and potential loss of property.

更详细的信息请参考 E615 系列纺织专用超启动变频器（同步机）用户手册。
Please refer to the E615 series textile-specific super-start variable frequency drive (VFD)(for synchronous motors) manual for more detailed information.

2. 命名规则 (Model identification)

HDv E615 - 4T 100 B - T 00
1 2 3 4 5 6 7

1	产品名称 (Product name)	4	电流等级 (Power class)	6	固件代号 (Firmware code)
HDv	禾川工业驱动 (HCFA industrial drives)	100	100A	T	同步电机 (Synchronous motor)
		150	150A		
2	产品系列 (Product series)			7	软件代号 (Software code)
E615	E615			00	标准机型 (Standard model)
3	产品电压等级 (Product voltage class)	5	制动组件 (Braking component)		
4T	三相 (Three-phase) 380V~480V	空 (N/A)	不含制动单元 (Without brake unit)		
		B	含制动单元 (With brake unit)		

3. 通用电气及环境规格 (General electrical and environmental specifications)

3.1 通用电气规格 (General electrical specifications)

型号 (Model)	电源容量 (Power capacity) : kVA	输入电流 (Input current) : A	输出电流 (Output current) : A	适配电机 (Compatible motor) : kW
三相电源 (Three-Phase power supply) : 380~480V, 50/60Hz				
HDv-E615-4T100B-T00	11	12.3	10	5.5
HDv-E615-4T150B-T00				5

3.2 环境规格 (Environmental requirements)

项目	Item	规格	Specifications
海拔高度	Altitude	≤1000m (1000~3000m降额使用)	≤1000m (Derating is required for altitude from 1000m to 3000m)
使用环境	Operating environment	开放式产品，需安装在有防护的控制柜内并予室内使用	Indoor use open type, must be installed in a protective control cabinet
工作温度	Operating temperature	-10~50°C (40~50°C降额使用)	-10~50°C (Derating is required for temperature from 40 to 50°C)
储存温度	Storage temperature	-40~70°C	-40~70°C
环境湿度	Ambient humidity	20~95%RH (无结露)	20~95%RH (non-condensing)
振动耐受	Vibration resistance	<5.9m/s ² (0.6g)	<5.9m/s ² (0.6g)
污染等级	Pollution degree	污染度2	Level 2
冷却方式	Cooling method	自然冷却	Natural air cooling
防护等级	IP rating	IP55	IP55

* 注：若设备未依制造商指定方式使用，设备所提供的保护可能会被减弱。
*Note: If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

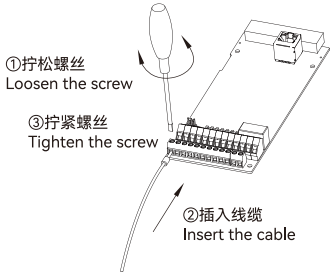
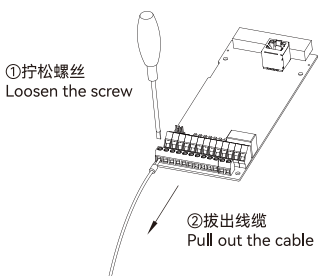
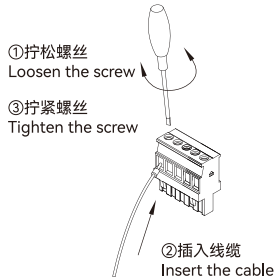
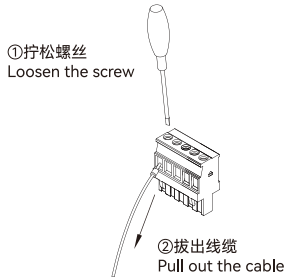
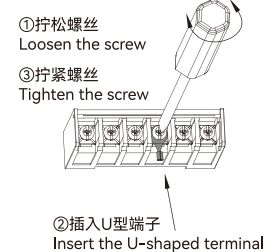
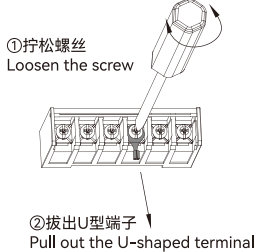
4. 安装说明 (Installation instructions)

4.1 控制柜安装 (Installation within a control cabinet)

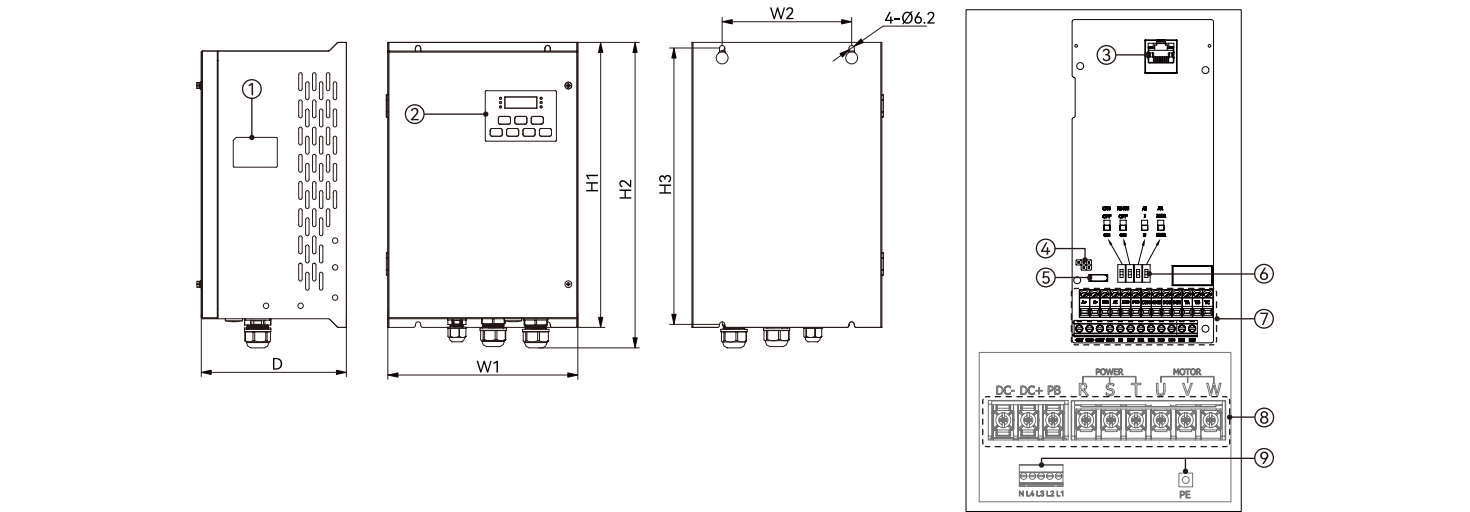
CN	请保证安装方向与墙壁垂直，使用自然对流或风扇对设备进行冷却，通过螺钉固定安装在控制柜。请参考右侧示意图，在设备周围留有足够的空间。	
EN	Please install the product perpendicular to the wall and ensure a sufficient cooling effect via natural air or a cooling fan. Fix and install it in the control cabinet with screws. Please leave enough clearance around the product as shown in the right figure.	

4.2 整机拆装 (VFD mounting and dismounting)

	安装时，使用两颗内六角组合螺丝紧固设备，先预锁螺丝②，然后将设备底部基板卡入螺丝②内，再去用螺丝①紧固上部壳体，建议扭矩 3.5N.m。 拆卸时，请确保设备断电，使用螺丝刀将②号内六角组合螺丝预松。后用螺丝刀拆卸螺丝①，同时用手扶住设备壳体，防止掉落，拆掉螺丝①，然后上提设备即可拆卸。	
CN	During mounting, use two socket head cap combination screws to fasten the equipment. First, pre-tighten screw ②, then insert the bottom base plate of the equipment into screw ②. Then, use screw ① to fasten the upper part of the housing, with a recommended torque of 3.5 N.m.	
EN	During dismounting, ensure the equipment is powered off. Use a screwdriver to pre-loosen the socket head cap combination screw ②. Then, use a screwdriver to remove screw ① while supporting the equipment housing by hand to prevent it from dropping. After removing screw ①, lift the equipment upwards to complete the dismounting.	

4.3 功能 I/O 接口 线缆拆装 1 (Functional I/O interface, cable connecting and disconnecting I)		
CN	使用螺丝刀将对应接口螺丝拧松或将对压块按下，随后将线缆插入到螺丝下方或压块对应接线孔中，最后拧紧螺丝，即可完成线缆安装。 使用螺丝刀将对应接口螺丝拧松或将对压块压下，随后将线缆从接线孔中取出即可完成拆卸。	
EN	During connection, use a screwdriver to loosen the screw of the corresponding interface or press down the corresponding unlocking tab. Then, insert the cable under the screw or into the corresponding wiring hole of the unlocking tab. Finally, tighten the screw, and the cable installation is completed. During disconnection, use a screwdriver to loosen the screw of the corresponding interface or press down the corresponding unlocking tab. Then, pull out the cable from the wiring hole to complete the disconnection.	
4.4 AC110V 输入接口 线缆拆装 2 (AC110V input interface cable connecting and disconnecting II)		
CN	参考 4.3 步骤。	
EN	Refer to the steps in 4.3.	
4.5 主回路接口 线缆拆装 3 (Main circuit interface, cable connecting and disconnecting III)		
CN	确保设备断电，使用螺丝刀将螺丝拧松，将接线端子插入螺丝垫片底部，最后拧紧螺丝，即可完成线缆安装。 使用螺丝刀将对应接口螺丝拧松，随后将线缆从接线孔中取出即可完成拆卸。	
EN	Before cable connection, ensure that the equipment is powered off. During connection, use a screwdriver to loosen the screw, insert the terminal into the bottom of the screw washer, and finally tighten the screw to complete the cable connection. During disconnection, use a screwdriver to loosen the screw of the corresponding interface, and then pull out the cable from the wiring hole to complete the disconnection.	

5. 接口和尺寸说明 (Interface and dimension description)



外形尺寸 (Dimension) : mm						孔径Φ (Hole diameter Φ) : mm	重量 (Weight) : kg
W1	W2	H1	H2	H3	D	6.2	8 approx.
220	150	330	359	320	168		

序号(No.)	名称	Name	功能	Function
1	标签	Label	显示变频器型号、规格参数、内部序列号等基本信息	Displays basic information including the VFD model, specification parameters, and internal serial number
2	操作显示界面	Operation display interface	显示用户界面，用于操作控制、状态监测	Displays the user interface for operation and status monitoring
3	RJ45接口	RJ45 interface	外引键盘接口	External keyboard interface
4	程序调试接口	Program debugging interface	仅用于内部调试，不对外开放	Only used for internal debugging, not open to external access
5	USB-C接口	USB-C interface	仅用于烧录程序，无法用于连接电脑后台软件	Only used for burning programs, not for connecting to computer background software
6	功能拨码开关*	Functional DIP switch*	配置不同功能的拨码开关，具体说明请参考注释	Used for configuring different functions, For specific instructions, please refer to the Note
7	功能I/O接口	Functional I/O interface	数字量I/O 模拟量I/O 继电器、公共端等多种功能接口，具体说明请参考第7节：功能I/O接口说明	Multiple functional interfaces include digital I/Os, analog I/Os, relays, common terminals. For specific instructions, please refer to Section 7: Functional I/O interface description
8	主回路接口	Main circuit interface	电源输入，电机动力输出接口	Power supply input and motor power output interfaces
9	AC110V输入接口	AC110V input interface	AC110V信号输入接口，具体说明请参考第7节：AC110V输入接口说明	AC110V signal input interface. For specific instructions, please refer to the description of AC110V input interface in Section 7

* 注：功能拨码开关说明
*Note: DIP switch function description

拨码丝印 (DIP switch silk-screen printing)	CAN	RS485	AI	AR
拨上 (Toggle up)	OFF (终端电阻断开) (Terminal resistance disconnected)	OFF (终端电阻断开) (Terminal resistance disconnected)	I (输入电流信号) (Input current signal)	250R (AI输入阻抗) (AI input impedance)
拨下 (Toggle down)	ON (终端电阻接入) (Terminal resistance connected)	ON (终端电阻接入) (Terminal resistance connected)	U (输入电压信号) (Input voltage signal)	500R (AI输入阻抗) (AI input impedance)

6. 指示灯和面板说明 (Indicator and LED panel description)

丝印 (Screen printing)	指示灯含义 (Indicator meaning)	颜色 (Color)	状态	Status	说明	Description
FWD	正转 (Forward rotation)	红色 (Red)	熄灭	Not lit	无正转指令	No forward rotation instruction
			常亮	Lit	停机前有正转指令； 运行状态时，变频器正转运行	Before the VFD is stopped, there is a forward rotation instruction. During the running state, the VFD runs in the forward direction
REV	反转 (Reverse rotation)	红色 (Red)	熄灭	Not lit	无反转指令	No reverse rotation instruction
			常亮	Lit	停机前有反转指令； 运行状态时，变频器反转运行	Before the VFD is stopped, there is a reverse rotation instruction. During the running state, the VFD runs in the reverse direction
ALM	故障 (Alarm)	红色 (Red)	熄灭	Not lit	无故障发生	No alarm
			常亮	Lit	发生故障	Alarm
A	电流 (Current)	红色 (Red)	熄灭	Not lit	-	-
			常亮	Lit	当前单位为电流	Unit: A
V	电压 (Voltage)	红色 (Red)	熄灭	Not lit	-	-
			常亮	Lit	当前单位为电压	Unit: V
Hz	频率 (Frequency)	红色 (Red)	熄灭	Not lit	-	-
			常亮	Lit	当前单位为频率	Unit: Hz

FWD
REV
ALM

A

V

Hz

RUN

ESC

STOP

<

▲

▼

ENTER

按键符号(key)	名称	Name	详细说明	Description
	运行按键	Run	面板控制情况下，用于控制电机运行操作	In the panel control mode, it is used to control the motor operation
	多功能按键	Multi-function	默认初始功能为参数界面退出。正转点动，反转点动，正反转切换，操作面板与远程切换	The default initial function is to exit the parameter interface. Forward JOG, reverse JOG, forward and reverse rotation switching, operation panel and remote switching
	复位 / 停机按键	Reset/Stop	故障报警时，用于复位故障；运行状态下，停止电机运行	When there is a fault alarm, it is used to reset the fault. During the running state, it is used to stop the motor
	移位按键	Shift	在 0 级菜单更换显示参数，在 2 级和 3 级菜单下，向左移动循环显示面板参数	Under the level 0 menu, the key is used to change the display parameters. Under the level 2 and 3 menus, the key is used to display panel parameters from the left
	UP 按键	Up	增大显示参数	Increase display parameters
	DOWN 按键	Down	减小显示参数	Decrease display parameters
	参数设置 / 确认退出按键	Parameter setting / Exit confirmation	短按按键，进入下一界面； 长按按键，返回上一界面； 3 级菜单页面下，短按按键，参数保存	Short press the key to enter the next interface; Long press the key to return to the previous interface; Under the level 3 menu page, press the key to save the parameter

7. 端子及配线说明 (Terminal and wiring description)

主回路接口说明 (Main circuit interface description)									
DC- DC+ PB POWER MOTOR R S T U V W									
引脚 (Pin)	DC-	DC+	PB	R	S	T	U	V	W
说明(Description)	母线电压负极 (Negative polarity of the busbar voltage)	母线电压正极 (Positive polarity of the busbar voltage)	制动电阻接口 (Braking resistor interface)	三相主电源输入 (Three-phase main circuit powersupply input)			电机动力输出接口 (Motor power output interface)		

功能I/O接口说明 (Function I/O interface description)													AC110V输入接口说明 (AC110V input interface description)						
引脚 (Pin)	A+	A-	SGND	AI	AGND	PTC	COM	CME	DO1	DO2	TA	TB	TC	N	L4	L3	L2	L1	PE
A+ A- SGND AI AGND PTC COM CME DO1 DO2 TA TB TC -10V GND +10V COM SS 24V DI1 DI2 DI3 DI4 DI5 DI6													N L4 L3 L2 L1 PE						
引脚 (Pin)	-10V	GND	+10V	COM	SS	24V	DI1	DI2	DI3	DI4	DI5	DI6	-						

类型 (Type)	引脚 (Pin)	说明 (Description)		类型 (Type)	引脚 (Pin)	说明 (Description)	
电源 (Power supply)	+10V / GND	+10V电源	Power supply DC+10V	数字量输出 (Digital output)	DO1 / CME	数字量输出1	Digital output 1
	-10V / GND	-10V电源	Power supply DC-10V		DO2 / CME	数字量输出2	Digital output 2
	24V / COM	内部电源DC24V	Internal power supply DC24V	继电器输出 (Relay output)	TA / TB	继电器常闭输出	Relay output NC
	SS	数字量输入DI端子公共端	Digital input DI common terminal		TA / TC	继电器常开输出	Relay output NO
	CME	数字量输出DO端子公共端	Digital output DO common terminal	RS485通讯接口 (RS485 communication interface)	A+	RS485通讯信号A+	RS485 communication signal A+
	AGND	模拟量输入AI端子公共端	Analog input AI common terminal		A-	RS485通讯信号A-	RS485 communication signal A-
模拟量输入 (Analog input)	AI/AGND	模拟量输入1	Analog input 1		SGND	RS485通信参考地	RS485 communication reference ground
数字量输入 (Digital input)	DI1 / SS	数字量输入1	Digital input 1	AC110V 数字量输入 (AC110V digital input)	L1 / N	AC110V数字量输入DI6	AC110V digital input DI6
	DI2 / SS	数字量输入2	Digital input 2		L2 / N	AC110V数字量输入DI5	AC110V digital input DI5
	DI3 / SS	数字量输入3	Digital input 3		L3 / N	AC110V数字量输入DI3	AC110V digital input DI3
	DI4 / SS	数字量输入4	Digital input 4		L4 / N	AC110V数字量输入DI2	AC110V digital input DI2
	DI5 / SS	数字量输入5	Digital input 5				
	DI6 / SS	数字量输入6	Digital input 6				

* 注: 1. AC110V 信号输入 L1、L2、L3、L4 分别和数字量输入点 DI6、DI5、DI3、DI2 复用, 两者不可同时使用。
2. RS485 通讯屏蔽线应接至机壳 PE 端子, 请勿接至 SGND。

*Note: 1. The AC110V signal inputs L1, L2, L3, and L4 are multiplexed with the digital input channels DI6, DI5, DI3, and DI2 respectively. These two types of inputs cannot be used at the same time.
2. The RS485 communication shielding wire must be connected to the chassis PE terminal, not to SGND.

三相 380V 机种变频器标准接线 (Standard wiring for three-phase 380V VFD model)

